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|------------|---|---|
| COUNTRY    | : Poland  | V |
| CATEGORY   | : Pharmacology and Toxicology/ Medicinal Plants   |   |
| APP. JOUR. | : RZHPhol., No. 1, 1959, No. 4614   |   |
| AUTHOR     | : Gorkowski, B.; Gertig, H.; Krocinski, M.  |   |
| INST.      | : Institute of Medicinal Plants   |   |
| TITLE      | : Comparative Study of the Spasmolytic Action<br>of the Extracts of Tussilago farfara L. and<br>Petesites officinalis Moench. |   |
| ORIG. SUP. | : Biol. Inst. rosl. leczn., 1957, 3, No.3, 195-201  |   |
| ABSTRACT   | : No abstract   |   |

CARD:

1/1

POLAND/Cultivated Plants - Medicinal. Essential Oil-Bearing. M  
Toxins.

Abstr Jour : Ref Zhur Biol., No 18, 1953, 82533

Author : Gertl, Henryk

Inst :                     

Title : Dynamics of Alkaloid Accumulation in Greater Celandine  
(Chelidonium majus L.) for the Period of Vegetation in  
the Course of a Year.

Orig Pub : Acta polon. pharm., 1957, 14, No 2, 109-113

Abstract : The alkaloid content is higher in the cultivated than in  
the wild plants. Observations on the dynamics of alkalo-  
ids from April 1955 to February 1956 permit the author  
to recommend harvesting of the celandine upon ripening  
of the first fruit. A higher alkaloid content was found  
in young sprouting, rosettes in April and September-  
October. -- Z.I. Zharbitskiy

Card 1/1

GERTIG HENRYK

POLAND/Chemical Technology. Chemical Products and Their Uses. Part III. Food Industry. H

Abstr Jour : Ref Zhur-Mhiniv, No 15, 1958, 51975

Author : Berkowski, Boleslaw; Gertig, Henryk; Glezak, Marian

Inst : -

Title : Effect of Drying Temperature on Capsaicin and Ascorbic Acid Content of Red Pepper Fruit.

Orig Pub : Acta polon. pharmoc., 1957, 15, No 4, 289-292

Abstract : Prior to the determination of capsaicin and ascorbic acid, red pepper fruits were dried in various conditions at 80, 70, 60, 50, 40, and 30° in driers, in the sun,

Cord : 1/2

GEATIG, Henryk; CZYZAK, Danuta

Variability of the complex of alkaloids in *Datura sanguinea* R. et F. during the period of the vegetative phase. Acta pol. pharm. 19 no.2:167-173 '62.

1. Z Ogrodu Farmakognostycznego AM w Poznaniu Kierownik: prof. dr B.Borkowski.

(STRAMONIUM metab) (ALKALOIDS metab)

GERTIG, Henryk

Some observations connected with the vegetative multiplication  
of Vinca maior L. Wiad botaniczne 5 no.4:344-345 '61.

1. Ogród Farmakognostyczny, Akademia Medyczna, Poznań.

GERTIG, Henryk

Alkaloids in *Eschscholtzia californica* Cham. I. Isolation and thin-layer chromatography of alkaloids appearing in leaves. Acta Pol. pharm. 21 no.1:59-64 '64.

1. Z Ogrodu Farmakognostycznego Akademii Medycznej w Poznaniu (Kierownik: prof. dr B. Borkowski).

GRACIO, Henryk

California poppy *Eschscholzia californica* Lam. alkaloids. II.  
isolation and thin-layer chromatography of alkaloid fractions  
appearing above ground. Acta Pol. pharm. 21 no.2:127-139 '64.

1. Z Ogroda Farmakognostyczne Akademii Medycznej w Poznaniu  
(Kierownik: dr. T. Lewulowski).

GERTIG, Henryk

Alkaloids of *Eschscholtzia californica* Cham. Pt.3. Acta Pol.  
pharm. 22 no.3:271-279 '65.

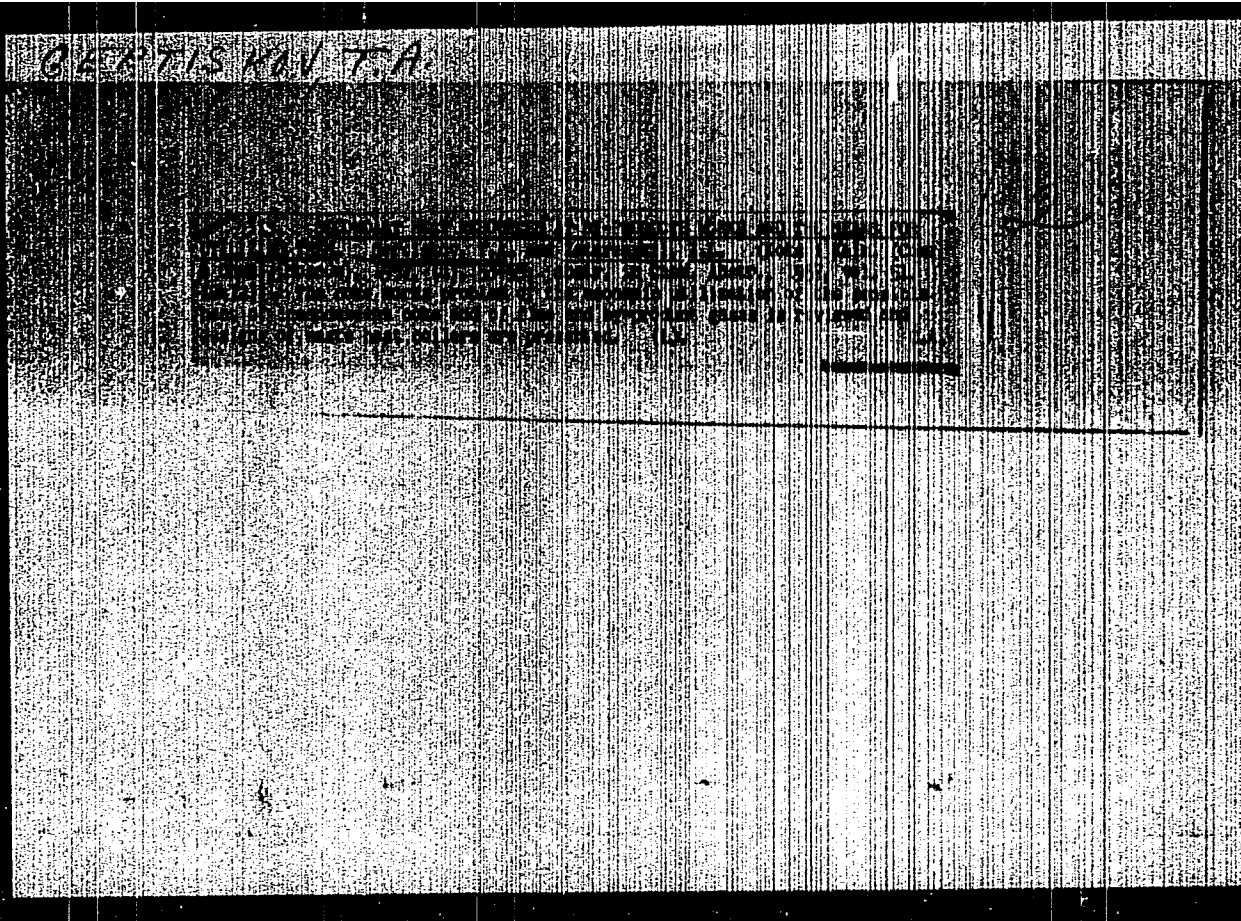
1. Z Ogrodu Farmakognostycznego Akademii Medycznej w Poznaniu  
(Kierownik: dr. Z. Kowalewski).

GERTIK, E. S.

GERTIK, E.S.; NEMIROVSKIY, A.I.

Cost accounting applied at the shop and brigade level. Bum.prom. 29  
no.4:26-28 Ap '54. (MLRA 7:6)

1. Solikamskiy tsellyulozno-bumazhnyy kombinat.  
(Paper industry--Cost accounting) (Cost accounting--Paper  
industry)



GERTLER, Janos

Static stability of intricate systems. II. Calculation of stability.  
Elektrotechnika 54 no.11:504-512 N '61.

1. Villamos Energetikai Kutato Intezet.

GERTLER, Janos

Loss calculating methods for economical load distribution. Elektrotechnika  
55 no.11:484-489 N '62.

1. Villamos Energetikai Kutató Intézet.

BRAUN, Peter, okleveles villamosmérnök, tudományos munkatárs; GERTLER,  
János, okleveles villamosmérnök, tudományos munkatárs; KARDOS,  
Gilbert, okleveles matematikus

Calculating network load distribution by digital computer.  
Eletrotechnika 57 no.7:290-298 11 '64.

1. Electric Power Industry Research Institute, Budapest, VI.,  
Rudas L.n.27 (for Braun and Gertler). 2. Electronic Computer  
Center, Ministry of Heavy Industry, Budapest, V., Markó u.1.  
(for Kardos).

GERTLER, Janos, okleveles villamosmérnök, tudományos munkatárs

Semiconductor functional units. Elektrotechnika 57 no.7:  
313-320 J1 '64.

1. Electric Power Industry Research Institute, Budapest, VI.,  
Rudas L.u.27.

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BORGVSZKY, L.; GERTLER, J.; KAISER, M.; VAMOS, P., dr.

Data processing experimental device for power plants. *Merse automat*  
13 no.2/3:67-69 '65.

1. Electric Power Industry Research Institute, Budapest.

GERTLER, JAMES

Director of Operations, Central Intelligence Agency  
Washington, D.C. 20505

L 16568-66

ACC NR: AP6008915

SOURCE CODE: HU/0012/65/013/004/0111/0113

AUTHOR: Gertler, Janos--Gertler, Ya.

ORG: none

TITLE: An electronic protecting circuit for transistorized power supplies

SOURCE: Meres es automatika, v. 13, no. 4, 1965, 111-113

TOPIC TAGS: power supply, electronic circuit, circuit design, electric protective equipment, transistor

ABSTRACT: The development, theoretical basis, construction, operation, and performance of a protection circuitry for transistorized power supplies was described and illustrated with circuit diagrams and performance curves. The starting current is adjustable; however, switching-off occurs in all instances where the current reaches 1.5-times its nominal value. No mechanical components or separate power supplies are involved. Orig. art. has: 4 figures. [JPRS]

SUB CODE: 09 / SUBM DATE: 16Dec63

Card 1/1 vmb

UDC: 621.311.6.016.35:621.316.923.082.77

~~SECRET~~ Livia

RUMANIA/Chemical Technology - Chemical Products and Their  
Application - Medicinals, Vitamins, Antibiotics.

H-17

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 8982

Author : Vasiliu George, Gertler Livia

Inst : -

Title : Physiologically Active Amides of Glycidic Acid.

Orig Pub : Rev. Univ. "C.L. Parhon" si Politehn. Bucuresti Ser.  
stiint. natur., 1955, No 8, 97-100

Abstract : To study the physiological activity of glycidic amides  
N-thiazolyl-chloracetamide (I) was prepared by reacting  
 $\text{ClCH}_2\text{COCl}$  with 2-amino-thiazole (II); by condensation  
with acetone or methyl ethyl ketone in the presence of  
finely divided metallic Na were synthesized  $\beta$ ,  $\beta'$ -di-  
methyl-N-thiazolyl-glycidamide or  $\beta$ -methyl- $\beta'$ -ethyl-N-  
thiazolyl-glycidamide, respectively. To a solution of 20  
g II in 300 ml anhydrous ether, at 0°-5° and with stirring,  
is added a solution of 11.2 g  $\text{ClCH}_2\text{COCl}$  in 50 ml anhydrous

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173°. 10 g of I are added to a mixture of 150 ml anhy-  
drous ether and 100 ml anhydrous acetone. treated with 1.5

GERTLER, L.; VASILIU, G.

Syntheses in the class of glycidic amides. p. 65.

ANALELE SERIA STINTFLOR NATURII. Bucuresti, Rumania. Vol. 7, no. 18, 1958.

Monthly List of East European Accessions (EEAI), IC, Vol. 2, no. 9, Sept., 1957.

Uncl.

COUNTRY : Armenia 1-2  
 CATEGORY : Organic Chemistry - Organic Synthesis  
 ACQ. DATA : RZhima., No. 19, 1959, No. 67903  
 AUTHOR : Vasilina, G.; Gortler, L.  
 INST. : L. I. Lomonosov University  
 TITLE : Synthesis of Glycine Analogs

ORIG. PUB. : An. Univ. "L. I. Lomonosov", Ser. Khim. Nauk.,  
 1959, No. 19, 65-66

ABSTRACT : As a continuation of previously initiated work (see abstract, RZMA, No. 3, 1958) on preparation of new hydrazides, there were synthesized  $\text{R}^1\text{C}(\text{NH}_2)\text{C}(\text{NH}_2)\text{R}^2$  (I), by the action of the corresponding ketone on  $\text{ClCH}_2\text{COOH}(\text{a})$  and (II) in  $\text{C}_2\text{H}_5\text{OH}$ , or in ether, in the presence of metallic Na, or in  $\text{Et}_3\text{N}$ , (III) in the presence of  $(\text{C}_2\text{H}_5)_3\text{ONa}$ . In the latter case the yield of I reaches 50-65%. The possible mechanism of the interaction is described. To 10 g of II,  $\text{R}^1 = \text{CH}_3$ , (IIa), and 2.3 g cyclohexanone (IV) in 50 ml  $\text{Et}_2\text{O}$  in a flask, at 10-15°, a solution of 2.1 g K in 40 ml  $\text{Et}_2\text{O}$ , stirred for 10 hours, heated at about 100° for 1 hour, the solvent is driven off, 200 ml water saturated with  $\text{NaCl}$  are

CHAD:1/2

GERTLER, Zbynek, dr.

The 14th Assembly of the international Civil Aviation Organization and the international air transportation. Letecky obzor 6 no.12:374-376 D '62.

44

GERTLER, Zbynek, dr.

On the organization of jointly financed air services over  
the North Atlantic. Letecky obzor 7 no.11:332-333 N°63.

GERTLER, Zbyněk, dr.

Little used possibilities, some problems of international  
cooperation in air transportation. Letecký obzor 3 no. 6:  
162-164 Jo '54.

GERTMAN, G.I.; SHAPIRENKO, N.M.

Calibration of alcohol measuring tanks. Spirt. prom. 23 no.4:26-27 '57.

(MLRA 10:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy promyshlennosti. (for Fertman). 2. Rosglavspirt (for Shapirenko).

(Distilling industries--Equipment and supplies)

GERMAN, A. I. GERMAN, I. P.

Correlation of the marginal content with the level of depletion  
in open pit ore mining. Izv. vys. shk. 1966, no. 8  
(MIRA 18:9)  
1966.

1. Tashkent'skiy politekhnicheskii institut, kafedra razrabotki  
metodov razrabotki y polezopol'zovaniya.

KALASHNIKOVA, Z., inzhener; GERTMAN, Ye., inzhener.

Machinery for mills with pneumatic transportation. Muk.-elev. prom.  
23 no.6:16-18 Je '57. (MLRA 10:9)

1. Gor'kovskiy mashinostroitel'nyy zavod imeni Vorob'yeva.  
(Grain handling machinery) (Air filters)

GERTMAN, Yu.M.; GEL'D, P.V.

The thermochemistry of the solid and liquid silicides of Mn.

report submitted for the 5th Physical Chemical Conference on  
Steel Production.

GERTMAN, Yu.M., inzh.; GEL'D, P.V., doktor tekhn.nauk prof.

Thermochemistry of silicomanganese. Izv.vys.ucheb.zav.: Chern.  
met. 2 no.9:15-27 S '59. (MIRA 13:4)

1. Ural'skiy politekhnicheskiy institut. Rekomendovano kafedroy  
fiziki Ural'skogo politekhnicheskogo instituta.  
(Thermochemistry) (Silicon alloys) (Manganese alloys)

18(6)

AUTHORS:

Kocherov, P. V.; Gertman, Yu. M.; Galid, P. V.

307/7-4-5-27/46

TITLE:

The Formation Heat of the Alloys of Calcium With Aluminum  
(Teploty obrazovaniya splavov kal'tsiya s aluminium)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1953, Vol. 4, Nr 5,  
pp 1106-1112 (USSR)

ABSTRACT:

The formation heat of the pure intermetallic compounds of calcium with aluminum ( $\text{CaAl}_2$  and  $\text{CaAl}_3$ ) was calculated.

The alloy was produced from the purest electrolytic twice distilled calcium and electrolytic aluminum. Melting of the components took place in the purest argon atmosphere. By means of radiostructural and metallographical investigations the composition of the alloy was determined and the results are shown by table 1. Determination of the formation heat of the alloys was carried out by means of an ordinary isothermal calorimeter, viz. by the differential method as follows: First the combustion heat of the alloy, and then

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SOV/71-1-1-17, 26  
The Formation Heat of the Alloys of Calcium With Aluminum

the equivalent combustion heat after composition of the mechanical mixtures of calcium and aluminum was investigated. From the difference between the average values the formation heat of the respective alloy was calculated. The accuracy of the method is 1.0 - 1.5 kcal/g-mol. The combustion method, the oxidation heat of the purest metals, as well as the six alloys and their corresponding mechanical mixtures were investigated. The results obtained by calorimetric determination carried out by the combustion method are shown by table 2. The combustion heat of the alloys and the mechanical mixtures of calcium and aluminum are shown by figure 3. For  $\Delta H_{Al_2O_3}$

- 399 kcal/g-mol  $Al_2O_3$  was found. This value agrees well with data found in publications;  $\Delta H_{Al_2O_3} = -400 \pm 2.0$  kcal/g-mol

$Al_2O_3$ . The dissolution heat of calcium and aluminum and of their alloys in 5 n hydrochloric acid was investigated. The

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SOV/78-4-5-21/46

The Formation Heat of the Alloys of Calcium With Aluminum

results obtained are shown by table 3 and figure 4. Figure 5 is a graphical representation of the formation heats of calcium- and aluminum alloys of various composition according to the combustion- and dissolution method. The experimentally obtained values agree well with those found in publications. The following values were found for the formation heat of the intermetallic compounds  $\text{CaAl}_2$  and  $\text{CaAl}_4$ :

$$\Delta H_{\text{CaAl}_2}^{22.5^\circ} = -17.5 \pm 1.5 \text{ kcal/g-atom}$$

$$\Delta H_{\text{CaAl}_4}^{22.5^\circ} = -10.3 \pm 1.0 \text{ kcal/g-atom}$$

There are 5 figures, 3 tables, and 11 references, 2 of which are Soviet.

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SOV/143-59-9-2/12

AUTHORS: Gertman, Yu. M. (Engineer), Gel'd, P. V. (Doctor of Technical Sciences, Professor)

TITLE: Concerning the Thermochemistry of Manganese-Silicon

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1959, Nr 9, pp 15-27 (USSR)

ABSTRACT: An investigation of the change of enthalpy during the formation of some solid silicides and also of the heats of mixing liquid manganese and silicon. Some data regarding the specific heats and heats of melting silicides of manganese were published before. The dependence of the activity of silicon and manganese on the composition of melts Mn-Si-C, Mn-Si, and Mn-Fe-Si-C was studied previously by O. A. Yesin, N. A. Vatolin, V. A. Kozheurov, N. I. Sablin and B. P. Burylev. The electrolytic manganese (about 0.01% C; about 0.01% P; 0.05% S) of Zestafeni Ferroalloy Plant (Zestafenskiy ferrosplavnyy zavod) and crystalline silicon (99.5% Si; 0.5% Fe; 0.5% Al; 0.2% Ca) of Chelyabinsk Ferroalloy Plant (Chelyabinskii ferrosplavnyy zavod) were used for the experiments. The flakes of electrolytic manganese

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Concerning the Thermochemistry of  
Manganese-Silicon

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SOV/148-59-0-2/22

were subject to the preliminary melting in corundum crucibles in the argon atmosphere. The same crucibles were used for the preparation of synthetic alloys Mn-Si of different compositions. The heats of formation of solid solutions (at 20° C) were determined by the method of burning, that is, by the difference of heats of burnt alloy and of burnt mixture of pure components of the same composition. The determination of the heat of formation of solid silicides of manganese (Fig 2), of the heat of mixing liquid manganese and silicon (Fig 4 and Fig 6), and also of the heat of dissolving silicon in the liquid ferromanganese and in ferrosilicomanganese (Figure 7) are discussed. During the study of the heat of formation of solid manganese silicides, it was found that for the monosilicide

$\Delta H = -17.0$  kcal/mole. The study of the heat of mixing of liquid manganese and silicon showed that the "first heat" of mixing is close to 25 kcal/mole. The integral heat of mixing changes in accordance with the composition, reaching a maximum (-9.3 kcal/g aton) for equiatomic alloy. The authors advanced an idea

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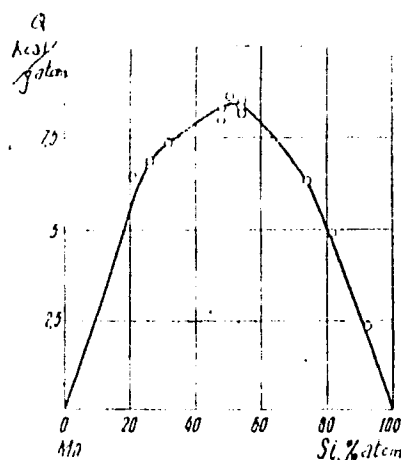


Fig. 3.  
304/143-09-0-2/02

Fig. 3. The heat of formation of solid alloys of manganese and silicon at 20° C.

regarding the microheterogeneity of the melt and the presence in it of "sibotaxis," enriched by the twin complexes  $MnSi$ . (Abstracter's Note: The word "sibotaxis" is unknown in American or Russian scientific literature. The following may be probable components of this synthetic work, as obtained from the Webster's Dictionary: Taxis (Greek) -arrangement, order; cibation-a process of feeding with fresh material during the course of operation. Therefore

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Concerning the Thermochemistry of  
Manganese-Silicon

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007/148-59-9-2/22

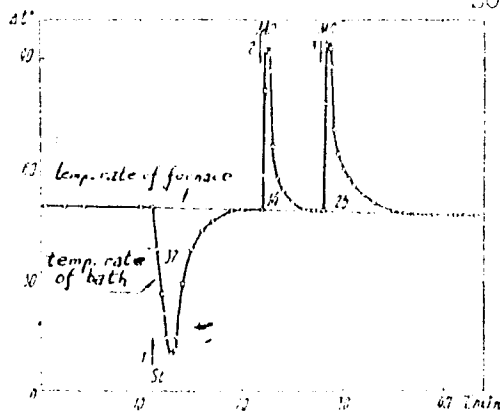


Fig. 4. The change of temperature of liquid silicon with consecutive addition to it of one portion of silicon and two portions of manganese.

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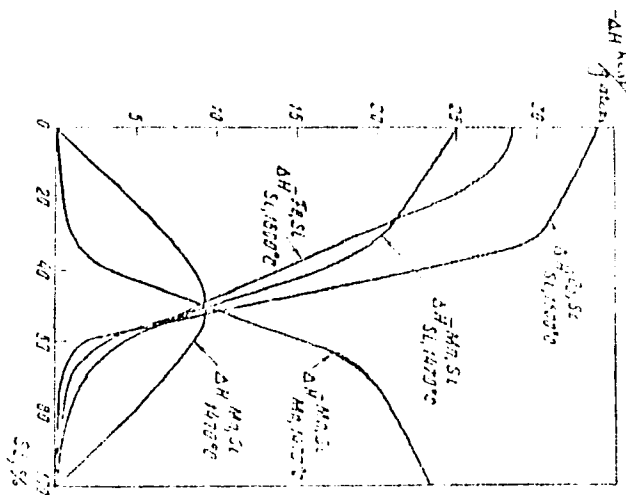


Fig. 6. A comparison of concentration relationship of partially molar heat content of silicon in its alloys with iron (1,600° C), cobalt (1,600° C), and manganese (1,470° C).

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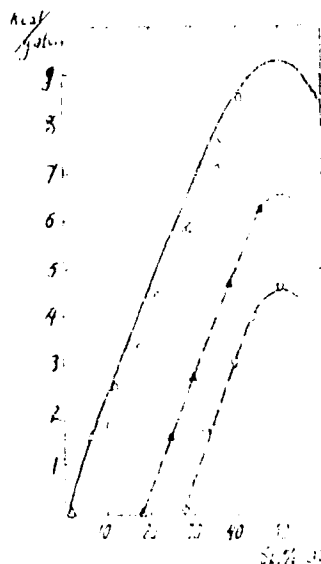


Fig. 7. The heats of mixing liquid silicon with commercial manganese, permanganate, and silicomanganese. Solid line--a characteristic of the pure Mn-Si system.

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"sibotaxis" probably is the author's version of an idea of microheterogeneity of the melt and of a continuous feeding of same with fresh material enriched by the twin complexes  $MnSi$ ). In this connection it is noted that there is a rather limited applicability of the theory of regular solutions to the properties of the studied systems. It was shown that the "first heats" of dissolving the silicon in commercial manganese, ferromanganese, and manganese-silicon (taking into account the silicon which is present in them) differ very little from those established for the synthetic alloys  $Mn-Si$ , amounting to 25-26 kcal/mole. There are 7 figures; 4 tables; and 20 references; 13 Soviet, 4 German, 1 Belgian, 2 U.S. The U.S. references are: Chipman, J., Grant, N., Trans. Amer. Soc. Metals, 31, 365, 1943; Naylor, B. F., J. Chem. Phys., 13, 329, 1945.

ASSOCIATION: Ural Polytechnic Institut (Ural'skiy politekhicheskiy institut)  
SUBMITTED: April 20, 1959 Card 1/1

GEL'D, P.V.; GERTMAN, Yu.M.

Initial heat of solution of liquid transition metals (fourth series)  
in liquid silicon. Fiz. met. i metalloved. 10 no.2:299-300 Ag '60.  
(MIRA 13:9)

1. Ural'skiy politekhnicheskiy institut im. S.M. Kirova.  
(Liquid metals) (Heat of solution)

S/126/60/010/005/027/030  
E073/E535

AUTHORS: Gel'd, P. V. and Gertman, Yu. M. ✓ ✓

TITLE: Volume Effects During Mixing of Liquid Silicon and Iron

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.5,  
pp.793-794

TEXT: Data are given which were obtained in studying the density of liquid iron-silicon alloys at 1500°C. The measurements were carried out by hydrostatic weighing in a hydrogen atmosphere. The heats were produced in (corundum lined) crucibles. From the same material a float was produced which was fixed on a 2 mm alundum rod, which was connected to a dynamometer. The temperature was measured by means of a PtRh (6%) - PtRh (30%) thermocouple. After taking into consideration the corrections for expansion of the float and the surface tension of the alloy, the errors in determining the density did not exceed  $\pm 1.0$  to 1.5%. The following interpolation data were obtained on the density of the melts on the basis of experimental results and also by calculation, using the additivity law: ✓

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S/126/60/010/005/027/030  
E073/E535

Volume Effects During Mixing of Liquid Silicon and Iron

| Volume,<br>%                    | 0    | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Exp. g/cm <sup>3</sup>          | 2.49 | 3.10 | 3.80 | 5.00 | 5.85 | 6.25 | 6.42 | 6.60 | 6.77 | 6.90 | 7.02 |
| Calculated<br>g/cm <sup>3</sup> | 2.49 | 2.94 | 3.39 | 3.85 | 4.30 | 4.75 | 5.21 | 5.66 | 6.11 | 6.57 | 7.02 |

As was to be anticipated, the obtained data on the densities of the alloys illustrate clearly the earlier obtained dependence of  $\Delta H$  on  $\Delta V$ . The greatest compression is observed in the case of formation of an alloy, the composition of which corresponds to the monosilicide of iron (50 at.% or 42 vol.% Fe) for which  $\Delta H = 11$  cal/g-atom. In this case the experimental (5.95 g/cm<sup>3</sup>) and the calculated (4.375 g/cm<sup>3</sup>) densities differ by 1.575 g/cm<sup>3</sup> and the compression during the formation of the solution (from liquid components) reaches 36%. In view of this it is necessary to pay attention to some of the features of the structure of silicon and of iron monosilicide. It is known that the lattice of solid silicon contains large tetrahedral voids, the dimensions of which are

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Volume Effects During Mixing of Liquid Silicon and Iron

sufficient for accommodating iron atoms. The atom coordinates do not differ greatly from each other in liquid silicon and in the solid iron monosilicide and, therefore, the considerable volume effect of the mixing cannot be attributed to the closer packing of the atoms. Apparently the increased density of the melt is due to the more intensive interaction between the particles, which leads to the formation of quasi-molecules, for instance of the FeSi type, in which directional bonds exist (Refs. 2 and 10). It is particularly due to this reason that dissolution of iron in liquid silicon is accompanied not only by a great heat release and decrease in volume but also by an appreciable drop in the electrical resistance. Thus, if the process of fusion of silicon leads to delocalization of the interatomic bonds, introduction of iron leads to the formation of silicide quasi-molecules with strong directional bonds and the atoms getting closer, which corresponds to an increase in the density of the melt. There are 1 table and 11 references: 8 Soviet, 2 German and 1 English. ✓

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M.Kirova  
(Ural Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: June 14, 1960

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S/180/60/000/006/025/030

E111/E335

AUTHORS: Gel'd, P.V. and Gertman, Yu.M. (Sverdlovsk)

TITLE: Interparticle Interaction in Liquid Alloys of  
Silicon with Iron and Nickel

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye  
tekhnicheskikh nauk, Metallurgiya i toplivo,  
1960, No. 6, pp. 134 - 137

TEXT: Numerous studies of liquid alloys of silicon with transition metals of the fourth period have indicated that alloying is accompanied by a great increase in particle interaction. Gel'd et al (Refs. 1, 2) have proposed the formation of quasimolecules with directed bonds which produce the cybotactic microheterogeneous structure. This has been confirmed (Ref. 3). To obtain further information the authors determined density isotherms at 1500 °C for alloys of silicon with iron and nickel. Density,  $d$ , g/cm<sup>3</sup>, as a function of vol. % iron (0-100) is shown in Fig. 1; density values are above additive throughout. On fusion silicon density rises

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by about 9%, about double the reported rise for germanium (Refs. 6, 7) and fusion is probably associated with an increase in coordination number, delocalisation of valency electrons (Refs. 7, 9) and a large decrease in resistivity (Ref. 7). Density changes suggest that in silicon-high liquid alloys there are stable groupings structurally related to alpha-lebeauite and the  $\epsilon$ -phase. Nickel silicon alloys provide a further illustration of the role of coordination. Here, the greatest deviation of density from the additivity relation occurs at compositions corresponding to the congruently melting  $\text{Ni}_2\text{Si}$  (Fig. 2). The comparatively small decrease in volume on forming the Ni-Si melt is understandable in terms of coordination effects

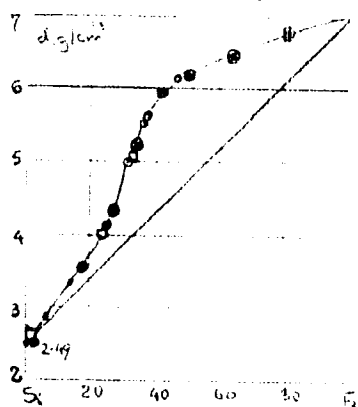
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E111/E335

# Interparticle Interaction in Liquid Alloys of Silicon with Iron and Nickel

The authors recommend further attention to the rough relations  
proposed by several authors for estimating heats of formation  
from volume decreases.

There are 2 figures and 14 references: 9 Soviet and  
5 non-Soviet.



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86705

S/180/60/000/006/025/030

E111/E335

Interparticle Interaction in Liquid Alloys of Silicon with  
Iron and Nickel

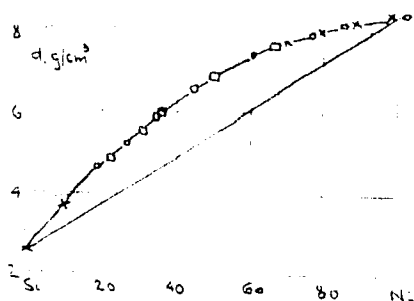


Fig. 2

SUBMITTED: August 26, 1960  
Card 4/4

3/19/62/000/003/002/191  
R006/R101

AUTHORS: Gertman, Yu. M., Gel'd, P. V.

TITLE: On thermochemistry of solid and liquid manganese silicides

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 5. abstract 3A40  
(V sb. "Fiz. khim. osnovy proiz-va stali", Moscow, AN SSSR, 1961, 52-67)

TEXT: The method of combustion in a cylinder was employed to determine the formation heat of solid Mn-Si alloys at 20°C. from the difference in the combustion heat of a mixture of components and alloys of the same composition. Electrolytical Mn (about 0.01% C, 0.05% P, 0.05% S) and crystalline Si (98.9% Si, 0.6% Fe, 0.5% Al, 0.2% Ca) were employed. To facilitate combustion of high-silicon alloys, Mn-metal powder was added. The substances were burnt in a corundum crucible with Al<sub>2</sub>O<sub>3</sub> admixture; combustion was accompanied by the formation of products with variable Mn valence. A diagram shows the formation heat in the Mn-Si system. For MnSi monosilicide the heat of formation is 17.6 kcal/mole. In a high-temperature calorimeter the authors determined the heat of solid Si dissolving in liquid Mn, and of solid Mn in liquid Si. Calibration of

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S/137/62/555/503/002/191  
ACC6/A101

On thermochemistry of Mn-Si ...

heat effects was performed by the preliminary addition into the calorimeter of defined quantities of a solid solvent (Mn or Si). The heats of mixing liquid Mn and Si at 1,470°C were determined. The mixing heats are exothermal ones. They are described by a symmetrical curve with a maximum of 9.35 kcal/g-atom at 50 at %, and do not obey the equation for regular solutions. Concepts are presented on micro-heterogeneity of Mn-Si smelts and the presence of MnSi pair complexes in them. It is experimentally shown that the initial heats of Si dissolving in commercial Mn, Fe-Mn and Si-Mn differ slightly from those established for pure synthetic alloys.

Yu. Golubev

[Abstracter's note: Complete translation]

Card 2/2

187540

25914

S/126/61/012/001/006/020

E193/E480

AUTHORS: Gel'd, P.V. and Gertman, Yu.M.

TITLE: Density of liquid alloys of silicon with cobalt and nickel

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.12, No.1, pp.47-50

TEXT: It was shown earlier by the present authors (Ref.1; FMM, 1960, 10, 793) that when a liquid ferrosilicide is formed by reacting liquid iron and silicon, a volume contraction  $\Delta V$  amounting to 36% takes place. This effect could be attributed either to stronger interaction between dissimilar particles ( $\epsilon_{Si, Si} \ll \epsilon_{Fe, Si} \ll \epsilon_{Fe, Fe}$ ) and/or to an increase in the coordination number  $Z$ . The object of the present investigation was to obtain more accurate information on the effect of these two factors on the magnitude of  $\Delta V$ , and to provide experimental data on the properties of liquid silicides. To this end the density of liquid Si-Co and Si-Ni alloys at 1500°C was measured in hydrogen by the hydrostatic weighing method. The Si-Co and Si-Ni alloys were chosen for this purpose because their formation is accompanied by the evolution of a large quantity of heat and because

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2572 S/126/61/012/001/006/020  
Density of liquid alloys ... E193/E480

both nickel and cobalt are characterized (up to their melting points) by the highest coordination number ( $Z = 12$ ), consequently, the effect of simultaneous variation of  $\epsilon$  and  $Z$  should be easier to study in Si-bearing alloys containing these elements. The results are reproduced in a table whose first column reads as follows: Vol.% of the metal, Co or Ni; ( $d_{Co, Si}$  exp.  $g/cm^3$ ) experimentally determined density of the Co-Si alloys, ( $d_{Ni, Si}$  exp.  $g/cm^3$ ) experimentally determined density of the Ni-Si alloys; ( $d_{Me, Si}$  add.  $g/cm^3$ ) calculated density of the Ni-Si and Co-Si alloys. Since the density of both cobalt and nickel are about the same, the calculated density of the Co-Si and Ni-Si alloys are also the same. In discussing the results obtained, the authors made the following points. (1) The densities of liquid nickel and cobalt are considerably higher than those determined by P.Kozakevitch and G.Urbain (J. Iron and Steel Inst., 1957, 186, 167). (2) As in the case of the Fe-Si alloy, the formation of the Ni-Si and Co-Si alloys is accompanied by contraction. The maximum  $\Delta V \approx 23\%$  in the Ni-Si system corresponds to the alloy of the  $Ni_{12}Si$  composition,  $\Delta V_{max} \approx 30\%$  in the Co-Si system corresponding to the CoSi alloy. Thus it has been shown that  $\Delta V_{Fe, Si} > \Delta V_{Co, Si} > \Delta V_{Ni, Si}$ .  
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25914 S/126/61/012/001/006/020  
E193/E480

Density of liquid alloys ...

This relationship does not tally with the relative magnitude of the heats of solution of the respective systems, which have been found by the present authors (Ref.3: FMM, 1960, 10, 299) to be:

$\Delta H_{Fe, Si} = -11.0$  kcal/g atom;  $\Delta H_{Co, Si} = -15.0$  kcal/g atom;  
 $\Delta H_{Ni, Si} = -16.0$  kcal/g atom. These and other considerations indicate that the volumetric changes  $\Delta V$  accompanying the formation of silicides studied are not an unequivocal function of  $\Delta H$ , but depend also on the degree of interaction between the particles of the alloys,  $\epsilon$ , which increases with increasing Fe and Ni contents, on the coordination number  $Z$  which under these conditions decreases, and on other factors. Consequently, the empirical laws proposed by O.Kubashevskiy and E.Evans (Ref.11: Thermo-Chemistry in Metallurgy, Metallurgizdat, 1954) for determining heats of formation of compounds (solutions) from data on volumetric changes accompanying the formation of these compounds (solutions) cannot but yield erroneous results. There are 1 table and 11 references: 7 Soviet and 4 non-Soviet. The three references to English language publications read as follows: Kozakevitch P., Urbain, G., Iron and Steel Inst., 1957, 186, 167; Newkirk J.B., Geisler, A.H. Acta met., 1953, 1, 456; Kubaschewski O., Haymer G., Trans. Card 3/4

Density of liquid alloys ... 25914 S/126/61/012/001/006/020  
E193/E480

Faraday Soc., 1960, 56, 473.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M.Kirova  
(Ural Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: October 21, 1960

Table.

| Объемный % Me                         | 0    | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| $d_{Co, Si, эксп.}$ г/см <sup>3</sup> | 2,50 | 3,40 | 4,30 | 5,20 | 6,00 | 6,70 | 7,00 | 7,30 | 7,55 | 7,80 | 8,05 |
| $d_{Ni, Si, эксп.}$ г/см <sup>3</sup> | 2,50 | 3,40 | 4,35 | 5,15 | 5,85 | 6,50 | 7,05 | 7,35 | 7,70 | 7,85 | 8,04 |
| $d_{Me, Si, адд.}$ г/см <sup>3</sup>  | 2,50 | 3,05 | 3,61 | 4,16 | 4,72 | 5,28 | 5,83 | 6,39 | 6,94 | 7,50 | 8,05 |

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S/137/61/000/012/134/149  
A006/A101

AUTHORS: Gertman, Yu.M., Gel'd, P.V.

TITLE: A unit to determine integral and partial mixing heat of melts up to 1,500°C

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961. 39, abstract 121305 ("Tr. Ural'skogo politekhn. in-ta", 1961, no. 114, 96-106)

TEXT: The authors describe a high-temperature calorimeter with an isothermal casing used to determine the mixing temperature of metals (V, Cr, Mn, Co, Ni, Nb, Ca, with Al and Si). A silite furnace was employed as a heater; it is power-supplied from a CH-2 (SN-2) lamp generator. A corundise (zircon) crucible was employed as calorimeter; it was placed on the point of a trihedral prism and equipped with a hermetic cover and a quartz tube to supply purified argon to the metal surface. The mixing of reagents in the calorimeter was performed with the aid of a mixer and also by thermo-diffusion. Amounts of 150 - 200 g metal were charged into the crucible and 6 batches of Si (about 10 g) and 1 batch of metal (about 15 g) into the distributing chaser. After checking the hermetic sealing and blowing argon through the system, the crucible was placed into the preheated

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S/137/61/000/012/134/149

AC06/A101

A unit to determine integral and partial mixing ...

furnace (its temperature was controlled by a thermoregulator) and the temperature field in the unit was stabilized. After isothermal holding for 1 hour, a solid metal batch was thrown into the liquid metal, causing a temperature change of the crucible. The temperature process of the pool was checked with an extensible W-Mo thermocouple. After equalizing the temperature, the first Si batch was thrown-off and the temperature of the system was observed, etc. Calculations of the mixing heat are given. It is stated that the error in determining the mixing heat was 3 - 8%. There are 12 references. ✓

A. Nikonov

[Abstracter's note: Complete translation]

Card 2/2

GEL'D, P.V., prof., doktor tekhn. nauk; KORSHUNOV, V.A., assistant;  
GERTMAN, Yu.M., inzhener-issledovatel'; PETRUSHEVSKIY, M.S.,  
assistant

Structure of iron and manganese silicide melts. Sbor. nauch.  
trud. Ural. politekh. inst. no.122:40-48 '61.

(MIRA 17:12)

5.4800

3000  
5/076/62/036/007/005/010  
B101/B138

AUTHORS: Gertman, Yu. M., and Gel'd, P. V. (Sverdlovsk)

TITLE: Thermochemistry of molten iron-silicon alloys

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 7, 1962, 1477 - 1482

NOTE: To obtain more accurate data on the thermochemistry of molten Fe-Si alloys, their heats of formation were measured at 1525°C, and the density isotherms of the systems were plotted. Apparatus and methods had been described earlier (Izv. vysshikh uchebn. zaved. (Chernaya metallurgiya), no. 1, 33, 1958). Results: (1) Up to 25% concentration of the second component the heats of mixing agree well with published figures:

$\Delta H_{Fe}^0 = -24.7$  kcal/g-atom,  $\Delta H_{Si}^0 = -30.0$  kcal/g-atom, but are very different from the data found by J. Chipman et al. (Acta metallurg., 2, 439, 1954) for a high content of the second component: at 46 atom% Si,  $\Delta H$  was -11 kcal/g-atom. Salient points on the isotherms around the FeSi and FeSi<sub>2.4</sub> (leboite) compositions, and compression of the melt, indicate non-

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Thermochemistry of molten ...

S/076/62/036/007/005/010  
B101/B138

equivalence, particle interaction and a complex short-range order. At equiatomic composition,  $\text{FeSi}$  quasimolecules are formed, the density rises to about  $7.65 \text{ g/cm}^3$ , the volume decreases by about 36%. The system thus fails to obey the law for regular solutions. Fe-Si melts have a microinhomogeneous structure with short-range order in the arrangement of the constituent atoms. This also explains the other physical (structural, electrical, magnetic, surface, thermal, etc.) irregularities of these alloys. In contradiction of, B. M. Turovskiy, A. P. Lyubimov (Izv. vysshikh uchebn. zaved. (Chernaya metallurgiya), no. 1, 24, 1960), no  $\alpha$ -phase ( $\text{Fe}_{23}\text{Si}$ ) or  $\text{Fe}_2\text{Si}$  could be found. There are 4 figures and 1 table. The most important English-language reference is: F. Glaser, W. Iwanick, J. Metals, 8, 1293, 1956.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnic Institute imeni S. M. Kirov)

SUBMITTED: October 1, 1960

Card 2/2

GEL'D, P.V.; PETRUSHEVSKIY, M.S.; KORSHUNOV, V.A.; GERTMAN, Yu.M.

Properties of liquid manganese-silicon alloys. Izv. vys. ucheb.  
zav.; chern. met. 6 no.7:160-161 '63. (MIRA 16:9)

1. Ural'skiy politekhnicheskii institut.  
(Manganese-silicon alloys)

GERTMAN, Z. A.

Gertman, Z. A. "On the clinical treatment of early manifestations of rheumatism in children," Izv. Kazansk. gos. in-ta usov raznostovaniya vrachey im. Lenina, Vol. XI, 1948, (on cover: 1948), p. 16-18.

30: U-37X, 22 May 43, (Leningrad's Zhurnal detsk. zab., No. 11, 1943).

KULIKOVA, Ye.N.; YAKOBSON, D.A.; DONSKAYA, R.B.; OSIPOVA, P.K.; GERTMAN,  
Z.A.; TSYBUL'SKAYA, M.G.

Role of B. proteus in acute diseases of newborn infants. Vop. okh.  
mat. i det. 6 no.3:35-38 Mr '61. (MIRA 14:10)

1. Iz Kazanskogo nauchno-issledovatel'skogo instituta epidemiologii  
i gigiyeny, 7-y detskoy bol'nitsy 4-go rodil'nogo doma.  
(PROTEUS) (INTESTINES--DISEASES)  
(INFANTS (NEWBORN))

KULIKOVA, Ye.N.; YAKOBSON, D.A.; DONSKAYA, R.B.; OSIPOVA, P.K.; GERTMAN,  
Z.A.; TSYBUL'SKAYA, M.G.

Role of B. proteus in acute diseases of newborn infants. Vop. okh.  
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(PROTEUS) (INTESTINES--DISEASES)  
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KULIKOVA, Ye.N.; YAKOBSON, D.A.; DOMSKAYA, N.B.; OSIPOVA, P.K.; GURMAN,  
Z.A.; TSYBUL'SKAYA, M.G.

Role of B. proteus in acute diseases of newborn infants. Vop. okh.  
mat. i det. 6 no.3:35-38 Mr '61. (MIRA 14:10)

1. Iz Kazanskogo nauchno-issledovatel'skogo instituta epidemiologii  
i gigiyeny, 7-y detskoy bol'nitsy 4-go roditel'nogo doma.  
(PROTEUS) (INTESTINES--DISEASES)  
(INFANTS (NEWBORN))



GERTNER, A.

3

22-8. Estimation of total organic carbon in aqueous solutions. A. Gertner and B. J. Kovacs (Z. anal. Chem., 1944, 112, 11). Total organic carbon in aqueous solutions, drinking water and sewage is determined by oxidation with  $K_2S_2O_8$ , by using  $Ag$  as catalyst and weighing the  $CO_2$  formed. Results in comparison with those by the chromic acid method, are satisfactory. Materials of known composition, e.g., oxalic acid, urea, hippuric acid, cysteine, dextrose and acetanilide give 100 per cent. recoveries. To the sample (diluted to 200 ml if necessary) add 10 per cent.  $AgNO_3$  (10 ml), 43 per cent.  $H_2SO_4$  (80 ml) and 10 per cent.  $K_2S_2O_8$  (100 ml), heat to  $80^\circ C$  and when the brown colour disappears add more 10 per cent.  $K_2S_2O_8$  (100 ml). The  $CO_2$  so formed is absorbed in suitably guarded soda-lime tubes. P. S. STROSS

GERLICK, G.Z., prof.

Effect of homogenates and lyophilized preparations of human erythrocytes on prothrombin utilization. Probl. genet. i perel. krovi 8 no.6:31-35 Ja'63 (MIRA 17:4)

1. Iz biokhimicheskogo otdeleniya (zav. A. Kvik) Medicinskogo fakul'teta Universiteta v Miluoki, SShA, i 2-ye klinicheskiye laboratorii bolezney (dir. - prof. Yu.A. Aleksandrovich) Kinshaskoy meditsinskoy akademii, Pol'sha.

GERTNER, L.R.

Abscesses following injection of antibiotics. Zdrav. Tadzh. 6 no.5:  
30-31 '59. (MIRA 13:3)

1. Iz kafedry gos'ital'noy khirurgii (zaveduyushchiy - prof. N.Z.  
Monakov) i khirurgicheskogo otdeleniya (zaveduyushchiy - N.P. Teli-  
yants) Stalinabadskoy gorodskoy klinicheskoy bol'nitsy.  
(ABSCESS) (ANTIBIOTICS)

JUHASZ, B.; GERTNER, M.; SZFORDI, B.; MESTER, Z.

Effects of some ganglionic blocking agents and substances with nervous system effect on the biliary tract. Acta physiol. hung. 11(Suppl):64-65 1957.

1. Physiologisches Institut der Agrarwissenschaftlichen Universitat, Budapest.

(HEXAMETHONIUM COMPOUNDS, eff.

on biliary tract in dogs (Ger))

(TETRAETHYLAMMONIUM, eff.

bromide, on biliary tract in dogs (Ger))

(MAGNESIUM SULFATE, eff.

on biliary tract in dogs (Ger))

(CHLORPROMAZINE, eff.

same)

(CURARE, eff.

tubocurarine, on biliary tract in dogs (Ger))

(BILIARY TRACT, eff. of drugs on

chlorpromazine, hexamethonium, magnesium sulfate,

tetraethylammonium bromide & tubocurarine in dogs (Ger))

HUNGARY

KOVACS, Gy., GLOSZ, L., GERTNER, M.; Veterinary Medical University, Institute of Anatomy and Histology (director: KOVACS, Gy., professor) (Allatorvostudományi Egyetem, Anatómiai és Szöveti Intézet), Budapest, and University of Agrarian Sciences, Institute of Animal Anatomy and Physiology (director: SZEP, I., docent) (Agrártudományi Egyetem, Állatorvományi és Élettani Intézet), Godollo.

"The Radioanatomy of the Skull Bones of Oxen."

Budapest, Acta Veterinaria Academiae Scientiarum Hungaricae, Vol XVI, No 4, 1966, pages 391-412.

Abstract: [German article] A brief literature survey is followed by detailed descriptive anatomical data with emphasis on the radioanatomical aspects. X-ray pictures taken in the frontobasial and transversal direction are presented with a detailed, schematic explanation of the shadows. 5 Eastern European, 1 Western references. [Manuscript received 20 Feb 66.]

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2000-N

= END -

1/1

RUMANSKI

JCHANE, B.; S. TEFER, B.; SCHILKE, M.; Higher Agricultural School  
(Mezpevzavshaya shkola), Dnepropetrovsk, and University for Agricultural Sciences  
(Agricultural University), Odessa; Department of Animal Anatomy and  
Physiology (Alla Konstantina et al.)

"The Effect of Tropic Paralytic and other Neurotoxic Compounds on  
Biliary Function."

Bulletin, Neurotoxicology, Vol XIV, No 6, 1962, pages 572-580.

Abstract: [Authors' summary modified] Tetraethylammonium-bromide, Hexa-  
methylammonium-iodide, Iris-(dimethylaminoethyl)amine, d-Tubocurarin, Larga-  
minil and pilocarpin were studied by the authors as to their effect  
on arterial blood pressure, tone and motility of the gall bladder and of the  
intestines and on the function of the Cadi-schimeter. The results are  
reported in detail.

[10 Human, 1. Western references]

1/1

SZEP, I.; GERTNER, M.

A new dehorning apparatus functioning like a light arch. Acta  
veter Hung 12 no.2:139-143 '62.

1. Lehrstuhl für Veterinaranatomie und Physiologie (Leiter:  
Dozent I.Szep) der Agrarwissenschaftlichen Universität, Budapest.

JUHASZ, B.; SZEGEDI, B.; GERTNER, M.

The effect of ganglion-blocking and other neurotropic agents on  
bile duct function. Kiserl. orvostud. 14 no.6:572-580 D '62.

1. Mezogazdasagi Foiszkola (Debrecen) es Agrartudomanyi Egyetem  
(Godollo) Allobonctani es Elettani Tanszeka.

(BILE DUCTS) (HEXAMETHONIUM COMPOUNDS) (CHLORPROMAZINE)  
(PILOCARPINE) (TUBOCURARINE) (TETRAETHYLAMMONIUM COMPOUNDS)

JUHASZ, B.; SZEGEDI, B.; GEITNER, M.

Effects of ganglion-blocking and other nervous system influencing agents on the function of the biliary tract. Acta physiol. acad. sci. hung. 21 no.3:225-234 '62.

1. Central Veterinary Laboratory, Budapest.

(TETRAETHYLAMMONIUM COMPOUNDS) (HEXAMETHONIUM COMPOUNDS)  
(GANGLIONIC-BLOCKING AGENTS) (TUBOCURARINE) (CHLORPROMAZINE)  
(PILOCARPINE) (BILIARY TRACT)

1. GERTNER, M.

2. The cranial bones of horses. Pt. 1. Anat. veter.  
1964.

3. In: Anatomie und Histologie der Veterinärmedizin.  
Lehrstuhl für Tieranatomie und  
Histologie (Prof. Dr. I. Szep) der Agrarwissenschaftlichen  
Universität für Anatomie und Histologie der Veterinär-  
Universität (for Kovacs).

ACC NR: AP6033456

SOURCE CODE: UR/0413/66/000/018/0039/0039

INVENTOR: Bankovskiy, Yu. A.; Gertner, M. D.; Yanson, E. Yu.

ORG: none

TITLE: Preparation of  $\alpha$ -dithionaphthoates of tetramethylammonium, tetraethylammonium, or tetraphenylarsonium. Class 12, No. 185907 [announced by Latvian State University im. Stuchka (Latviy kiy gosudarstvennyy universitet)]

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 39

TOPIC TAGS: tetramethylammonium dithionaphthoate, tetraethylammonium dithionaphthoate, tetraphenylammonium dithionaphthoate, sodium dithionaphthoate, *halide ammonium compound*

ABSTRACT: In the proposed method,  $\alpha$ -dithionaphthoates of tetramethylammonium, tetraethylammonium, or tetraphenylarsonium are obtained by treating sodium  $\alpha$ -dithionaphthoate with the appropriate onium halides, e.g., with tetramethylammonium iodide. [W.A. 50]

SUB CODE: 07/ SUBM DATE: 08Oct65

Cord 1/1

UDC: 547.233.4.07

GERMEL, P.F., Cand Tech Sci -- (disc) "Study of the  
 problem of ~~xxxxxx~~ the possibility of excavating  
 recently-sinking ~~xxxxxx~~ coal under the cities of the  
 Donbas. (For example the city of Stalin)." Stalino,  
 1957, 23 pp. (Committee for Supervising ~~xxxxxx~~ Control  
 of operations in industry and for Mining Supervision  
 in the Council of Ministers USSR). All-Union Science  
 Mine Surveying Inst VNIMI. Ukrainian Affiliate)  
 120 copies (RL, 28-55, 105)

- 27 -

GERTNER, P.P., inzhener.

Experience in relaying underground gas conduits in Donets Basin.  
Bezop.truda v prom. 1 no.7:20-22 J1 '57. (MLRA 10:7)  
(Donets Basin--Gas, Natural--Transportation)

GERTNER, P.F.

Preservation of gravity flow in pipelines being undermined. Shakht.  
stroil. no.2:12-13 '58. (MIRA 11:3)

1. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skogo markshey-  
derskogo instituta.

(Mining engineering) (Pipelines)

GERTNER, P.F.

Coal mining in areas underlying petroleum pipelines. Ugol' Ukr.  
Vol.3 no.5:20-21 My '59. (MIRA 12:9)

1. Ukrainskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
marksheyderskogo instituta.  
(Coal mines and mining) (Petroleum pipelines)

GERTNER, P.F., kand.tekhn.nauk

Protecting vertical shafts and the hoisting equipment  
installation from the detrimental effect of mining. Shakht.  
stroi. 5 no.7:9-12 JI '61. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy  
institut.

(Mining engineering)

GERTNER, P.F., kard. tekhn. nauk

Expansion pipes for underground gas pipelines. (Trudy IZMIR  
no. 27:378-382 '62 (1962, 21))

GERTNER, P.F., kand.tekhn.nauk

Protection of the multiple rope hoisting complex against the  
effect of mining in the underlying seams. Shakht.stroi. 6  
no.9:19-21 S '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy institut.  
(Donets Basin--Mining engineering)

KOLBENKOV, S.P.; MEDYANTSEV, A.N.; IOFIS, M.A.; KOROTKOV, M.V.;  
MULLER, R.A.; YUSHIN, A.I.; MELAMUT, L.Sh.; KARGIN, G.P.;  
~~GERTNER, P.P.~~; ZARETSKIY, K.S.; CHECHKOV, L.V., red.izd-  
va; MAKSIMOVA, V.V., tekhn. red.

[Designing, constructing, and protecting buildings and  
structures on foundations undercut by mining] Proektiro-  
vanie, stroitel'stvo i okhrana zdaniy i sooruzheniy na pod-  
rabatyvaemykh territoriakh. Moskva, Gosgortekhzdat,  
1963. 451 p. (MIRA 16:8)

(Earth movements and building)

GERTOPAN, V.P.

Apparatus for automatic control of the curvature of wooden parts.  
Der. prom. 6 no.10:7-8 0 '57. (MIRA 10:11)

1. Ukrainskiy Nauchno-issledovatel'skiy institut mekhanicheskoy obra-  
botki drevesiny.  
(Woodworking machinery) (Automatic control)

BOREPS, A.N.; GERTOVICH, T.S.

Use of polarized infrared radiation in determining the orientation  
of the crystallographic axes of certain anisotropic semiconductors.  
Opt. i spektr. 18 no.4:722-713 Ap '65.

(MIRA 18:8)

40593-000 ENT(1),1 UP(0) A"

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AUTHOR: Gertovich, T. S.

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B

ORG: none

TITLE: Accuracy of determining the optical constants of semiconductors based on transmission in the infrared region of the spectrum

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 6, 1960, 535-540

TOPIC TAGS: semiconductor, optic constant, optic property, IR spectrum

ABSTRACT: A graphic analysis is made of the accuracy of determining the optical constants of semiconductors in the infrared region of the spectrum from absolute and relative transmissions of layers having different thickness. Both methods are based on the use of only absolute or relative transmissions. It is assumed that the absolute error is the resultant of all experimental errors due to the equipment and to the specimen. Multiple reflection in the specimen was taken into account in all investigations. It is concluded that when measuring absolute transmissions the one-beam method permits determining the absorption coefficient and reflectivity with a sufficient degree of accuracy when the thickness ratio is at least three.

Card 1/2

UDC: 635.341

L 40893-66

ACC NR: AP6019664

The two-beam method ensures a high accuracy of determining the absorption coefficient but cannot give sufficient accuracy for reflectivity determinations. The curves derived in the study permit estimating the errors at different ratios of the thicknesses of the specimens and reflectivities of their surfaces. Orig. art. has: 4 figures and 6 formulas.

SUB CODE: 09,20/ SUBM DATE: 24Nov64/ ORIG REF: 005/ OTH REF: 001

Card 2/2 MLP

GERTS, I.G.; FILIPPOV, L.P.

Investigation into the heat conductivity of liquid binary solutions  
near the critical points. Zhur. fiz. khim. 30 no.11:2424-2427 N '56.  
(MLRA 10:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Heat--Conduction) (Critical point) (Systems (Chemistry))

KOL'MAN, E., prof.; GORPINICH, K.Ye., uchitel'; SHTEPAN, V.Ye., prepodavatel' teoreticheskoy mekhaniki; VLASOV, O.Ye., prof. (Moskva); MERKULOV, I.T. (Ul'yanovsk); KUTSEV, M.M. (Kuybyshev); CHAPTYKOV, P.G. (Leningrad); DEMIN, V.N. (Tashkent); TUKMAN, R.E. (Tallin); GERTS, G., doktor fizicheskikh nauk, dotsent; DUDEL', S.P., doktor filosof. nauk, prof. (Moskva)

Finiteness and infinity in the universe; survey of letters and articles received by the editor. Priroda 54 no.8:97-102 Ag '65.  
(MIRA 18:8)

1. Shkola No.8 g. Kremenchuga (for Gorpinich). 2. Krasnoyarskiy politekhnicheskiy institut (for Shtepan). 3. Filosofskiy fakul'tet universiteta im. Gumbol'dta, Berlin, Germanskaya Demokrati-cheskaya Respublika (for Gerts).

121527-65 107(6)/EP(6)/SA(A)/ST(1)/SEC(1)/REF(1)/EX(1) 174

ANALYSIS

DOCUMENTATION

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Coria, R. A.; Kuynd, R. A.

The dynamics of pneumatic drives in automatic machinery (Dinamika pnevmaticheskikh dvigatelnkh ustroystv v avtomaticheskoy mashinostroyeni). Moscow: Mashinostroyeniye, 1964. 224 p., illus., bibl. 15. 1200 copies printed. Author: Engineer R. A. Coria. Editor: Engineer P. M. Korov. Chief of the publishing house: G. V. Kuznetsov. Technical editor: V. P. Salnikov. N. V. Timofeyeva. Proofreader: V. A. Polonskiy.

TOPIC TAGS: pneumatic drive; automatic machinery; machine design; dynamic design; time of year; single action pneumatic drive; reversible pneumatic drive; throttling.

PURPOSE AND COVERAGE: This book is intended for engineering designers and scientific personnel and may be useful to students specializing in machine design. The results of theoretical and experimental research on pneumatic drives in automatic machinery and automatic lines are given. Methods for dynamic design of

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The dynamics of economic driving in the United States is discussed in a paper by J. H. Duesenberry, University of California, San Diego, in the volume "The Economics of Growth" (1960), edited by J. H. Duesenberry and J. R. Poterba, published by the National Bureau of Economic Research, New York, 1960. The book is a collection of essays on the economics of growth, and the paper by Duesenberry is one of the most influential. It discusses the role of the government in the economy, and the impact of economic growth on the standard of living. The book is a classic work in the field of economic growth, and it is highly recommended for anyone interested in the subject.

TOPIC TAGS: pneumatic drive, hydraulic drive, machine design, dynamic design  
 time of year, single action, double action, reversible, pneumatic drive,  
 through

**PURPOSE AND COVERAGE:** This book is intended for engineering designers and scientists concerned with the design of mechanical systems and may be viewed as a textbook for the design of mechanical systems. The text covers kinematics and dynamics of mechanisms, the design of mechanisms, and the design of machines. The book is intended for use in the design of mechanisms and machines in the design of mechanical systems.

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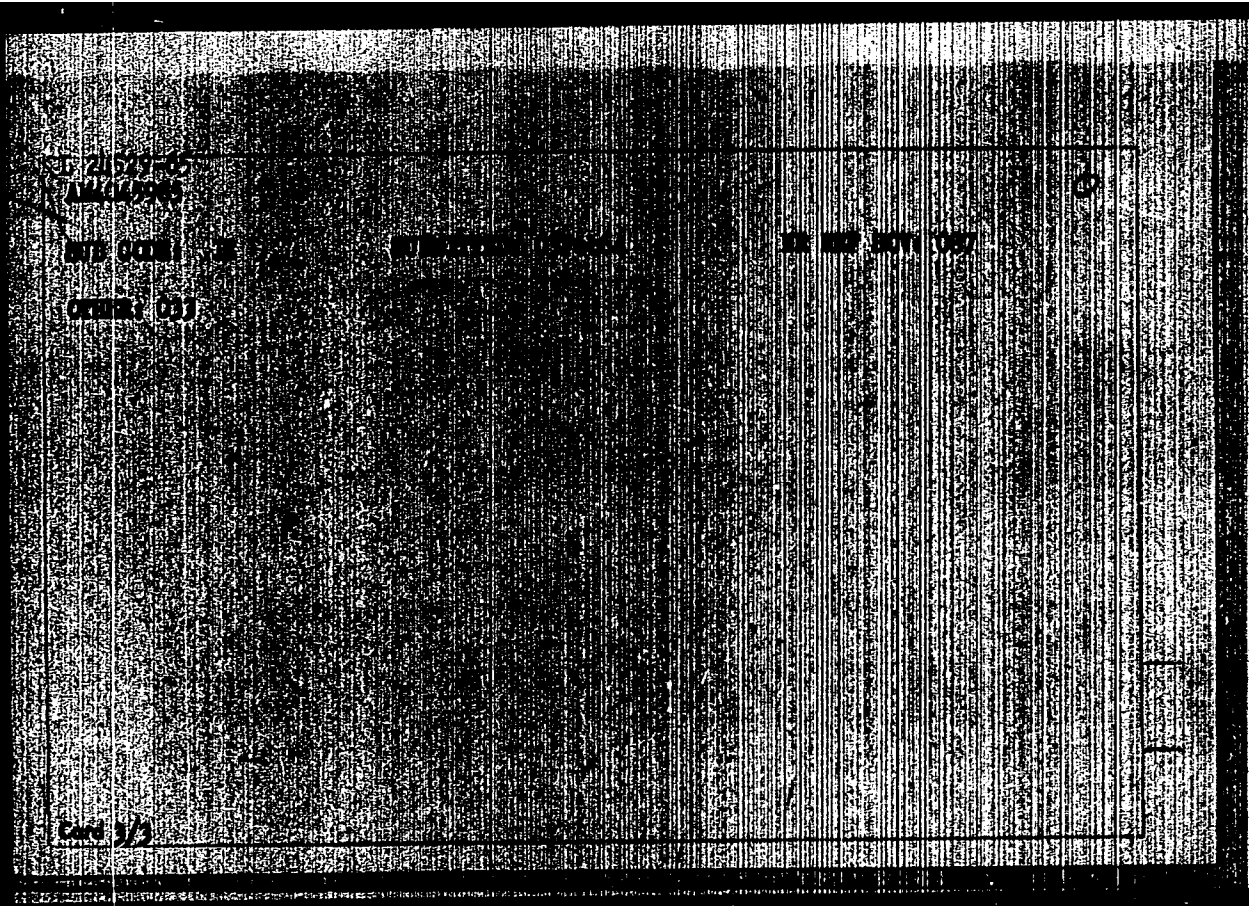
AMQA5985

pneumatic drives, graphs and diagrams illustrating rapid determination of the time of wear of pneumatic devices, and a comparative analysis of calculated and test data are presented.

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Cont. 2/3



GERTS, L.G., SOLOV'YEV, S.P., doktor geologo-mineralog. nauk, prof.,  
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red.; SHUVALOVA, V.V., tekhn. red.

[Index of articles to the second series of the "Zapiski"  
of the All-Union Mineralogical Society, issued from 1912 to  
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no.6:672-682 '62. (MIRA-16:2)

1. Geologicheskii i mineralogicheskii institut Universiteta  
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1961, No. 5.

Dissertation: "The Question of Classification of the State of the Soviet Union."  
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Moscow, 1961, 7 pp.

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GERTS, Ye.V. (Moskva)

Design of pneumatic piston mechanisms with side-valve distribution. Izv. AN SSSR Otd. tekhn. nauk no.1:150-154 Ja '55.  
(Pneumatic machinery) (MLRA 8:8)